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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,141

Applicant(s)

KEMPIN, ELLEN

Examiner

LECHI TRUONG

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/30/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 7/27/05 11/25/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-31 are presented for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-6, 9-16, 18-22, 27-28, 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,192,413 B1) in view of Dillow et al (US. Patent 7, 140025) and further in view of Vaarala (US 20060173968 A1).
3. **As to claim 1**, Lee teaches the invention substantially as claimed including: message queue (queues, col 2, ln 30-33/ queue 62, col 6, ln 55-57), a message (messages, col 2, l 29-35/ message 54, ln 55-57), a first system executing a first software application of an enterprise information technology system to a second system executing a second software application of the enterprise information technology system, (col 2, ln 27-32), one object type (the message type destination, col 2, ln 35-40/ the message type, col 6, ln 50-56/ the heartbeat message , col 7, ln 35-39), wherein each message queue is used only for one object type(col 2, ln 44-46/ col 6, ln 55-57/ col 7, ln 34-40), an indication(the router table 4 of fig.3A indicates that it is the "U" queue identifier which is the selected destination for the incoming message 54, col 6, ln 53-58),

receive(the router table 44 is loaded into the memory, col 6, ln 35-37/ “U”queue identifier[indicator] located in the table), an indication of an object type(col 6, ln 50-60) ; identify a message queue used for the object type(col 6, ln 50-60/ col 2, ln 27-45).

4. Lee does not explicitly teach object type associated with a message independently of the message and the software application , in response to the indication, the registration related action affecting processing by middleware of messages stored in the identified queue and messages destined to the identified queue. However, Dillow teaches object type associated with a message independently of the message and software application, in response to the indication, the registration related action affecting processing by middleware of messages stored in the identified queue and messages destined to the identified queue (The TSCM server 220 executes on the transaction server 204 and coordinates the communications of service request messages and service response messages to and from available service applications, including applications 208, 210, and 212, col 4, ln 40-44/ Fig. 2/ Fig. 3/request message for a particular service, col 4, ln 49-52/ each service application registers with the TSCM server 220 as part of its initialization procedure. Preferably, the registration process determines the service type, and therefore, the service queue, that the service application supports, col 5, ln 30-33/ As the TSCM server 220 receives service request messages, the messages are validated and forwarded to the appropriate service queue, preferably in accordance with service type (e.g., 1-800 service, VPN service, and CC service). An exemplary service queue is a first-in, first-out linked list, array, or other data structure for ordering the receipt of messages, col 5, ln 45-51/col 9, ln 50-55, When a service update message (e.g., a registration or deregistration message) is retrieved from the TSCM queue 324, the monitor thread 312 modifies the service status memory block (i.e., the Status block 416

of FIG. 4) to reflect a change in active services. If the service update message indicates that a new service type is added, the monitor thread creates a new service queue for the new service type and service application, col 10, ln 26-33/ each service application 208 and 212 receives service request messages from a single service queue relating to a single service type, col 4, ln 59-65).

5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee with Dillow to incorporate the feature of object type associated with a message independently of the message, in response to the indication, the registration related action affecting processing by middleware because this prevents a first network connection from degrading the performance of a second network connection.

6. Lee and Dillow do not teach independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message. However, Vaarala teaches independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message(each host also manages its own IPSec SPI space independently, para[0047], ln 3-6/ FIG. 1, comprising a first computer, here a client computer 1 served by an intermediate computer, here as a server 2, and a host computer 4, that is served by the second computer, here a security gateway (SGW) 3. The security gateway supports the standard IPSec protocol and optionally the IKE key exchange protocol. The client computer and the server computer support a modified IPSec and IKE protocol, para [0070], ln 1-6/The message contains the following payloads: [0143] A Security Association (SA) payload, which contains the IKE phase 1 security policy offers from the first computer. [0144] The message may contain additional payloads, such as

Vendor Identification (VID) payloads, certificate requests /responses, etc. [0145] A VID payload can be used to indicate that the first computer supports the protocol described here, para[1042], ln 1-6).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Dillow with Vaarala to incorporate the feature of independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message because this solves the potential security problems in the intermediate host(s) that terminate such tunnels.

8. **As to claim 2**, Lee teaches identified message queue (col 6, ln 50-53) and Dillow teaches perform a registration-related action comprise one or more code segments configured to cause de-registration of the message storage such that processing of messages from the message storage is ceased (col 6, ln 30-40).

9. **As to claim 3**, Dillow teaches registration of the identified message queue such that processing of messages from the identified message queue is started (col 5, ln 30-35).

10. **As to claim 4**, Dillow teaches perform a registration-related action to enable solving a problem with transferring enterprise application data having the object type to the second application (col 6, ln 35-40).

11. **As to claim 5**, Lee teaches identifying the message queue comprises identifying a message queue used for the object type based on a name of the object type being included as part of a name of the message queue (col 9, ln25-31/ col 2, ln 38-48).

12. **As to claim 6**, Lee teaches identifying the message queue comprises identifying a message queue used for the object type by accessing a data structure having data that associates a name of the message queue and a name of an object type (col 6, ln 50-57/ col 2, ln 38-48).

13. **As to claims 9-14**, they are apparatus claims of claims 1-3; therefore, they are rejected for the same reasons as claims 1-3 above.

14. **As to claim 15**, it is an apparatus claim of claims 1-3; therefore, it is rejected for the same reasons as claims 1-3 above. In additional, Dillow teaches receiving an indication of registration (col 10, ln 26-33), deregister (col 6, ln 35-40), based on stored associations between object type and function modules, a specific one of the function module for identify a message queue (specifically service request messages and service response messages, is communicated through the read and write threads [functions modules] corresponding to a given logical communications connection/ The read thread 316 is responsible for receiving service request messages from the CSCM 308 in association with the logical communications connection that was validated by the main thread 302, col 9, ln 15-19/ the read thread 316 deposits the service request message on the appropriate service queue 326, col 9, ln 50-55) and Lee teaches returning a queue name of the message queue used for the indicated object type (col 10, ln 18-24).

15. **As to claims 16, 18-19**, they are apparatus claims of claims 1, 4, 15; therefore, they are rejected for the same reasons as claims 1, 4, 15 above.

16. **As to claim 20**, Lee teaches receive an indication of an object type associated with a message independently of the message from a user (col 5, ln 35-45).

17. **As to claim 21**, Dillow teaches software situated between the first software application and the second software application (col 2, ln 10-15).

18. **As to claim 22**, Dillow teaches prohibiting messages destined to the de-registered message queue from being added to the de-registered message queue (col 5, ln 35-41).
19. **As to claim 27**, Dillow teaches identify a message queue used for the object type and located in a message hub systems, the message hub system receiving messages from the first system and routing the received messages to the second system(col 5, ln 42-50).
20. **As to claim 28**, Dillow teaches one of a customer type, and employee type, an organization type, a business partner type, and a sales order type (col 5, ln 45-51, col 9, ln 50-55).
21. **As to claim 30**, Vaarala teaches the payload of the message includes data that the first software application derives from a document (para [1042], ln 1-6).
22. Claims 7, 8, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,192,413 B1) in view of Dillow et al (US. Patent 7, 140025) in view of Vaarala(US 20060173968 A1), as applied to claim 1 above, and further in view of Hoffman (US 6,940814 B1).
23. **As to claim 7**, Lee, Dillow, Vaarala do not explicitly teach a sales system. However, Hoffman teaches a sale system (business units, col 1, and ln 42-45).
24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Dillow, Vaarala and Hoffman because Hoffman's sale system would improve the efficiency of Lee, Dillow, Vaarala's systems by providing certain

quality of service for applications within the subnetwork, such as priority and bandwidth reservation.

25. **As to claim 8**, Hoffman teaches a message includes enterprise application data (col 1, ln 42-45).

26. **As to claim 17**, it is an apparatus claim of claim 8; therefore, it is rejected for the same reason as claim 8 above.

27. Claims **23, 24-25, 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,192,413 B1) in view of Dillow et al (US. Patent 7, 140025) and further in view of Ye (US 6760911 B1) and further in view of Vaarala (US 20060173968 A1).

28. **As to claim 23**, Lee teaches the invention substantially as claimed including: message queue (queues, col 2, ln 30-33/ queue 62, col 6, ln 55-57), a message (messages, col 2, l 29-35/ message 54, ln 55-57), a first system executing a first software application of an enterprise information technology system to a second system executing a second software application of the enterprise information technology system, (col 2, ln 27-32), one document type (the message type destination, col 2, ln 35-40/ the message type, col 6, ln 50-56/ the heartbeat message , col 7, ln 35-39), wherein each message queue is used only for one object type(col 2, ln 44-46/ col 6, ln 55-57/ col 7, ln 34-40), an indication(the router table 4 of fig.3A indicates that it is the “U” queue identifier which is the selected destination for the incoming message 54, col 6, ln 53-58), receive(the router table 44 is loaded into the memory, col 6, ln 35-37/ “U”queue

identifier[indicator] located in the table), an indication of an object type(col 6, ln 50-60) ;
identify a message queue used for the object type(col 6, ln 50-60/ col 2, ln 27-45).

29. Lee does not explicitly teach object type associated with a message independently of the message and software application , in response to the indication, the registration related action affecting processing by middleware of messages stored in the identified queue and messages destined to the identified queue. However, Dillow teaches object type associated with a message independently of the message and software application, in response to the indication, the registration related action affecting processing by middleware of messages stored in the identified queue and messages destined to the identified queue (The TSCM server 220 executes on the transaction server 204 and coordinates the communications of service request messages and service response messages to and from available service applications, including applications 208, 210, and 212, col 4, ln 40-44/ Fog. 2/ Fig. 3/request message for a particular service, col 4, ln 49-52/ each service application registers with the TSCM server 220 as part of its initialization procedure. Preferably, the registration process determines the service type, and therefore, the service queue, that the service application supports, col 5, ln 30-33/ As the TSCM server 220 receives service request messages, the messages are validated and forwarded to the appropriate service queue, preferably in accordance with service type (e.g., 1-800 service, VPN service, and CC service). An exemplary service queue is a first-in, first-out linked list, array, or other data structure for ordering the receipt of messages, col 5, ln 45-51/col 9, ln 50-55, When a service update message (e.g., a registration or deregistration message) is retrieved from the TSCM queue 324, the monitor thread 312 modifies the service status memory block (i.e., the Status block 416 of FIG. 4) to reflect a change in active services. If the service update message indicates that a

new service type is added, the monitor thread creates a new service queue for the new service type and service application, col 10, ln 26-33/ each service application 208 and 212 receives service request messages from a single service queue relating to a single service type, col 4, ln 59-65).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee with Dillow to incorporate the feature of object type associated with a message independently of the message, in response to the indication, the registration related action affecting processing by middleware because this prevents a first network connection from degrading the performance of a second network connection.

31. Lee and Dillow do not teach inbound and outbound message queues used for document, the outbound message queued being located at the first system, the inbound message queue being located at the second system other than the first system, and inbound message queue receiving message from the outbound message queue. However, Ye teaches inbound and outbound message queues used for document, the outbound message queued being located at the first system, the inbound message queue being located at the second system other than the first system, and inbound message queue receiving message from the outbound message queue(MQ Series servers are installed on both end points. Each has one queue manager active, the Local Queue Manager 60 in the local environment 30 and the Remote Queue Manager 70 in the remote environment 50. The two queue managers 60 & 70 communicate with each other in both directions, over configured MQ channels 90. The Messaging API Framework 20 acts as the interface between the CORBA-based application 10 and the MQ Series Messaging System represented by its two illustrated queue managers 60 & 70. The queue manager that an

application directly connects to is referred to as the local queue manager; while the other queue manager is the remote queue manager. Queues owned by the local queue manager are local queues while those owned by the remote queue manager are remote queues. Unless otherwise noted, for purposes of this disclosure, the point of view taken will be defined as that of the CORBA-based application 10. Hence its environment 30 will be described as the "local" environment and its queue manager 60 will be described as the "local" queue manager, col 3, ln 50-67/ Fig. 1) .

32. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Dillow with Ye to incorporate the feature of inbound and outbound message queues used for document , the outbound message queued being located at the first system, the inbound message queue being located at the second system other than the first system, and inbound message queue receiving message from the outbound message queue because this allows distributed C++ applications to communicate with little effort.

33. Lee, Dillow and Ye do not teach independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message. However, Vaarala teaches independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message(each host also manages its own IPsec SPI space independently, para[0047], ln 3-6/ FIG. 1, comprising a first computer, here a client computer 1 served by an intermediate computer, here as a server 2, and a host computer 4, that is served by the second computer, here a security gateway (SGW) 3. The security gateway supports the standard IPsec protocol and optionally the IKE key exchange protocol. The client computer and the server

computer support a modified IPSec and IKE protocol, para [0070]; In 1-6/The message contains the following payloads: [0143] A Security Association (SA) payload, which contains the IKE phase 1 security policy offers from the first computer. [0144] The message may contain additional payloads, such as Vendor Identification (VID) payloads, certificate requests /responses, etc. [0145] A VID payload can be used to indicate that the first computer supports the protocol described here, para[1042], In 1-6).

34. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Dillow and Ye with Vaarala to incorporate the feature of independently of the first and second software application, the object type including a category of enterprise application data included in a payload of the message because this solves the potential security problems in the intermediate host(s) that terminate such tunnels.

35. **As to claim 24**, Lee teaches receive an indication of an object type associated with a message independently of the message from a user (col 5, In 35-45).

36. **As to claim 25**, Dillow teaches software situated between the first software application and the second software application (col 2, In 10-15).

37. **As to claim 31**, Vaarala teaches message includes a document that the first software application derives from another document (para [0170], In 1-5).

38. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,192,413 B1) in view of Dillow et al (US. Patent 7,140025) in view of Ye(US 6760911 B1) in view of Vaarala(US 20060173968 A1), as applied to claim 23 above, and further in view of Lodrige (US 6920635 B1).

39. **As to claim 26**, Lee, Dillow, Ye and Vaarala do not teach the hub message system receiving messages from the outbound message queue located at the first system and routing the received messages to the inbound message queue located at the second system. However, Lodrige teaches the hub message system receiving messages from the outbound message queue located at the first system and routing the received messages to the inbound message queue located at the second system (propagation controller 216[hub message] facilitates concurrent propagation of messages between the first and second software modules 204 and 206 by permitting concurrent access to the synchronization queue 210 and/or synchronization queue 214, col 4, ln 25-35/ Fig. 2).

40. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Dillow, Ye and Vaarala with Lodrige to incorporate the feature of hub message system receiving messages from the outbound message queue located at the first system and routing the received messages to the inbound message queue located at the second system because this provides the improved methods for managing data propagation between software modules.

41. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,192,413 B1) in view of Dillow et al (US. Patent 7, 140025) in view of Vaarala (US 20060173968 A1), as applied to claim 1 above, and further in view of Ye(US 6760911 B1).

42. **As to claim 29**, Lee, Dillow and Vaarala do not teach notify a user of the identified message queue; perform the registration -related action on the identified queue after receiving a user confirmation. However, Ye teaches notify a user of the identified message queue(col 13, ln 29-39), perform the registration -related action on the identified queue after receiving a user confirmation(col 12, ln 60-57).

43. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Dillow and Vaarala with Ye to incorporate the feature of notify a user of the identified message queue, perform the registration -related action on the identified queue after receiving a user confirmation because this allows distributed C++ applications to communicate with little effort.

Response to the argument

44. Applicant's arguments filed 05/30/2008 for claims 1-31 have been considered but are not persuasive in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272-3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Meng-Ai An/

Supervisory Patent Examiner, Art Unit 2195